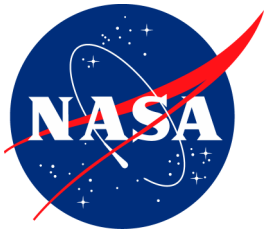
Aviation Safety Reporting System
Program Overview

Updated through Fourth Quarter 1999



ASRS PROGRAM OVERVIEW

ASRS CONCEPT AND MISSION

The Aviation Safety Reporting System (ASRS) receives, processes and analyzes voluntarily submitted incident reports from pilots, air traffic controllers, and others. Reports submitted to ASRS describe both unsafe occurrences and hazardous situations. ASRS's particular concern is the quality of human performance in the aviation system.

ASRS PURPOSE

Identify deficiencies and discrepancies in the National Aviation System

- Objective: Improve the Current Aviation System

Provide data for planning and improvements to the future National Aviation System

- Objective: Enhance the basis for Human Factors Research & Recommendations for Future Aviation Procedures, Operations, Facilities, and Equipment

NASA Aviation Safety Reporting System

- Voluntary
- Confidential
- Non-Punitive

ASRS BACKGROUND

WW II	Industry and Military recognized value of voluntary incident reporting
1958	Need for U.S. Incident Data System raised during FAA Enactment Hearings
Oct. 1974	United Airlines incident foreshadowed TWA 514 Accident
Dec. 1974	TWA 514 Accident
April 1975	Study of the National Air Transportation System as a Result of the Secretary's Task Force on the FAA Safety Mission
May 1975	Aviation Safety Reporting Program (ASRP) Implemented (FAA)
May 9, 1975	Advisory Circular 00-46 Issued
April 1976	Aviation Safety Reporting System (ASRS) Implemented (NASA/FAA)

DOCUMENTS GOVERNING ASRS IMMUNITY & CONFIDENTIALITY

- Federal Register Notice, 1975 and 1976
- Federal Aviation Regulations Part 91.25
- FAA Advisory Circular Number 00-46D
- Facility Operation and Administration Handbook, 7210.3R

THE IMMUNITY CONCEPT: PILOTS

(FAA Advisory Circular AC No. 00-46D)

c. The filing of a report with NASA concerning an incident or occurrence involving a violation of 49 U.S.C. Subtitle IV, or the FAR, is considered by FAA to be indicative of a constructive attitude. Such an attitude will tend to prevent future violations. Accordingly, although a finding of a violation may be made, neither a civil penalty nor certificate suspension will be imposed if:

(1) The violation was inadvertent and not deliberate;

(2) The violation did not involve a criminal offense, or accident, or action under 49U.S.C. Section 44709 which discloses a lack of qualification or competency, which are wholly excluded from this policy:

(3) The person has not been found in any prior FAA enforcement action to have committed a violation of 49 U.S. C. Subtitle VIII, or any regulation promulgated there for a period of 5 years prior to the date of the occurrence; and

(4) The person proves that, within 10 days after the violation, he or she completed and delivered or mailed a written report of the incident or occurrence to NASA under ASRS. See paragraphs 5c and 7b.

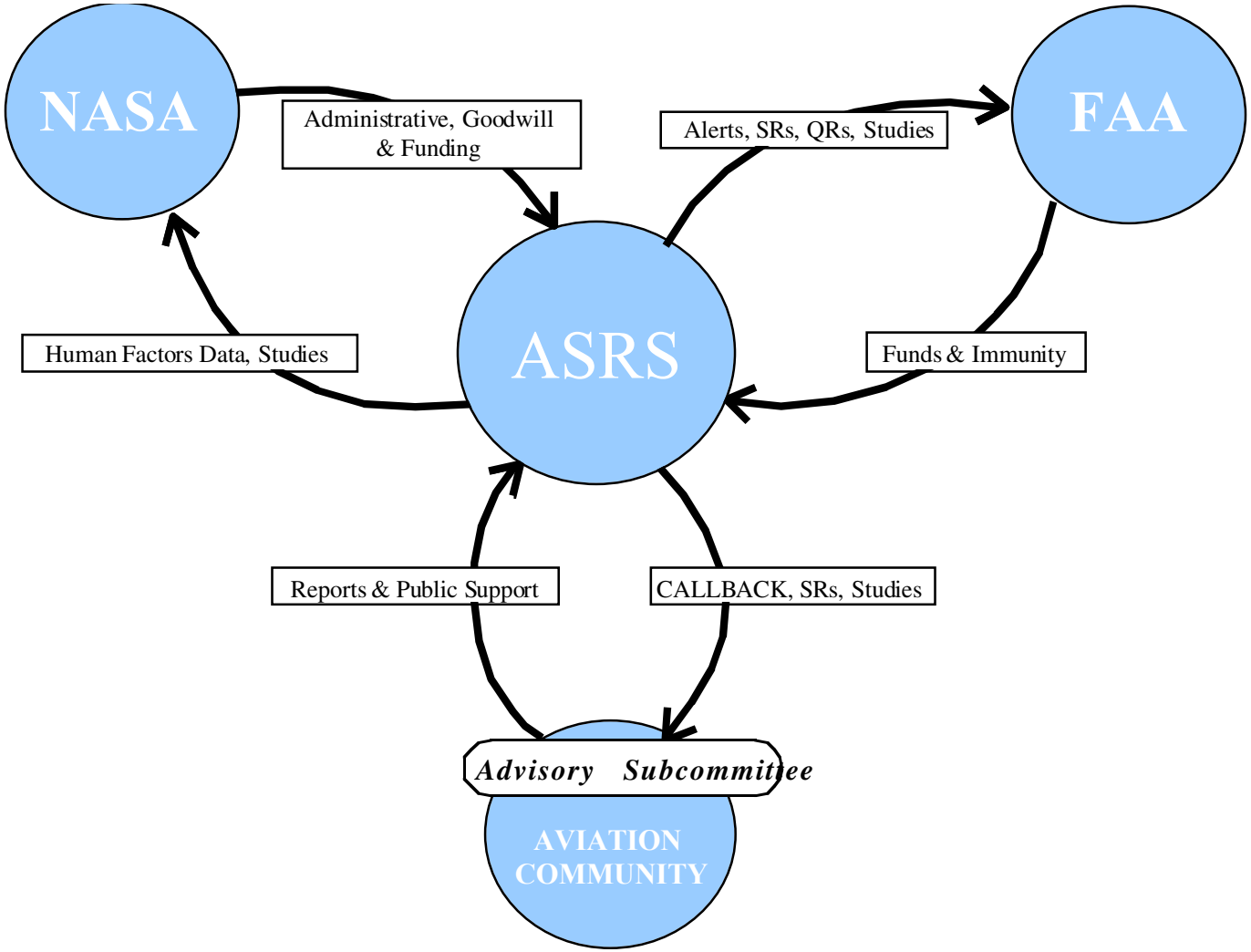
NOTE: Paragraph 9 does not apply to air traffic controllers. Provisions concerning air traffic controllers involved in incidents reported under ASRS are addressed in Order 7210.3.

THE IMMUNITY CONCEPT: CONTROLLERS

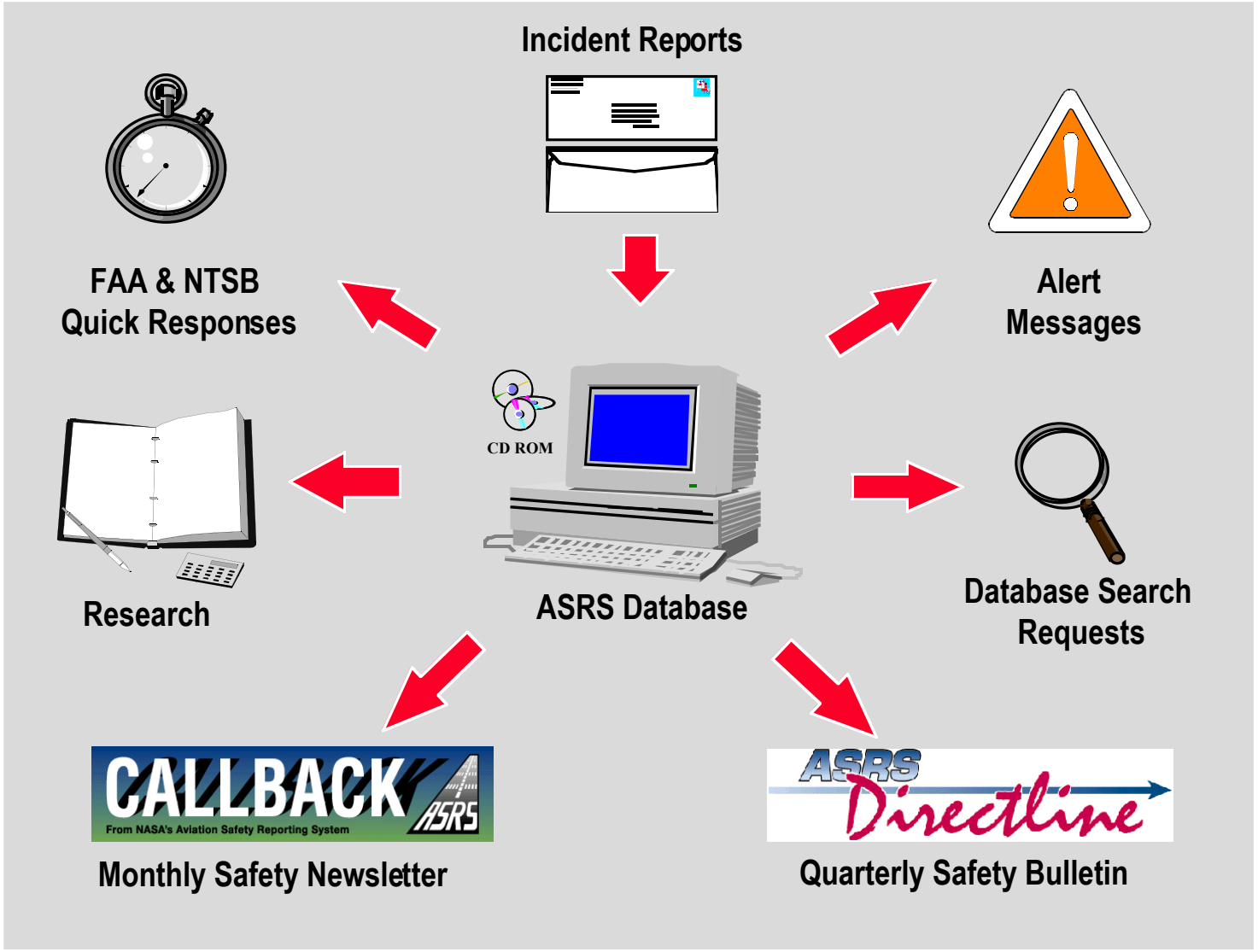
(Facility Operation and Administration Handbook, 7210.3M)
2-2-10 Performance Deficiency Corrective Actions

a. Remedial training shall be conducted in accordance with Chapter 2, Section 3, of FAAO 3120.4, *Air Traffic Technical Training*.
b. Performance deficiencies which have proven not to be correctable through the remediation process shall be resolved under FAAO 3500.7, I, or FAAO 3550.6, Performance Management and Recognition System.
c. Disciplinary action may not be taken against an employee for performance which led to an operational error or deviation if all the following conditions were met:
   (1) The employee's action or lack of action was inadvertent; and
   (2) The employee's action or lack of action did not involve a criminal offense, accident, or action under Section 609 of the Federal Aviation Act which discloses a lack of qualification or competency, which is wholly excluded from this policy; and
   (3) The employee shows proof that within 10 days after the occurrence of the operational error or deviation he/she completed and delivered or mailed a written report of the occurrence to National Aeronautics and Space Administration (NASA), Aviation Safety Reporting System (ASRS).

BENEFICIARIES & PROVIDERS



ASRS PRODUCES A WIDE VARIETY OF PRODUCTS & SERVICES FOR THE AVIATION COMMUNITY



ASRS STAFF

The ASRS staff is composed of retired aviation professionals, as well as highly qualified researchers, systems experts, managers, and administrative staff.

The professional staff bring to the program many decades of prior experience as pilots, air traffic controllers, maintenance, research scientists, and managers.

REPORT PROCESSING

REPORT INTAKE OVERVIEW

ASRS receives reports from pilots, air traffic controllers, air carrier inspectors, cabin attendants, mechanics, and a variety of other individuals. ASRS's report intake has been robust from the first days of the program, averaging approximately 400 reports per month. In recent years, report intake has grown at an enormous rate. It now averages 725 reports per week and more than 2900 reports per month.

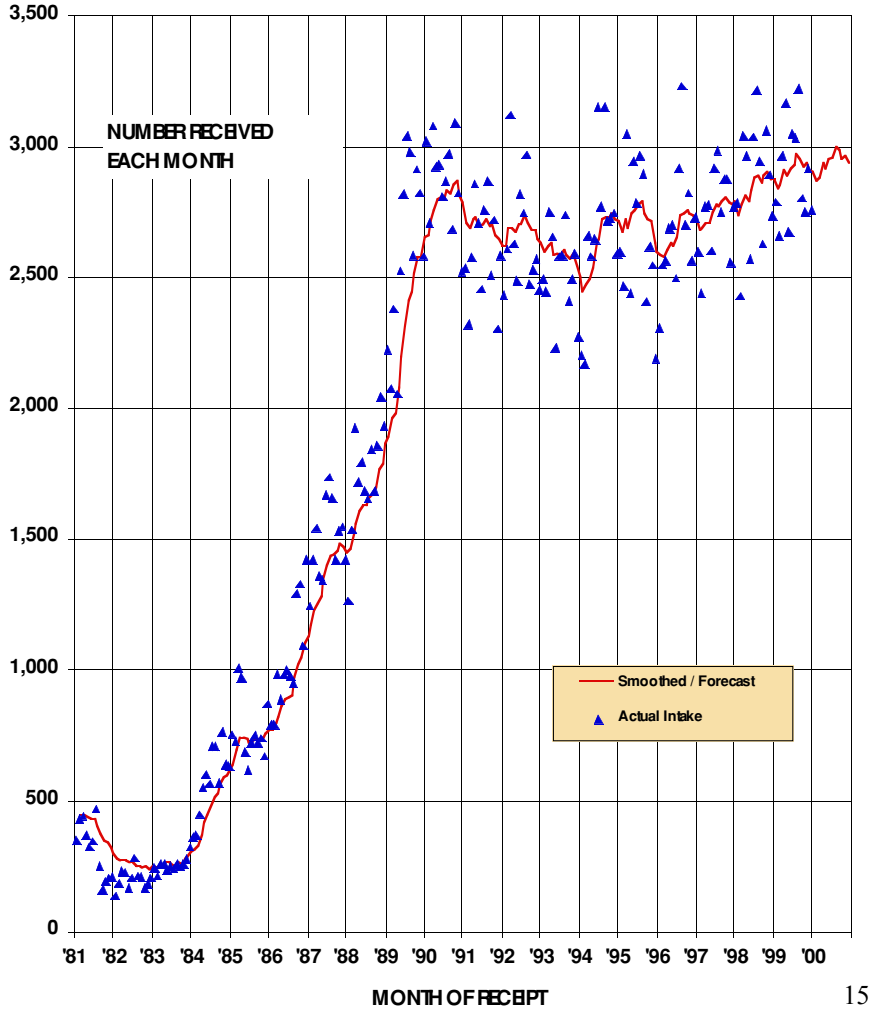
ASRS REPORT INTAKE

- An Increase of 60% Since 1988

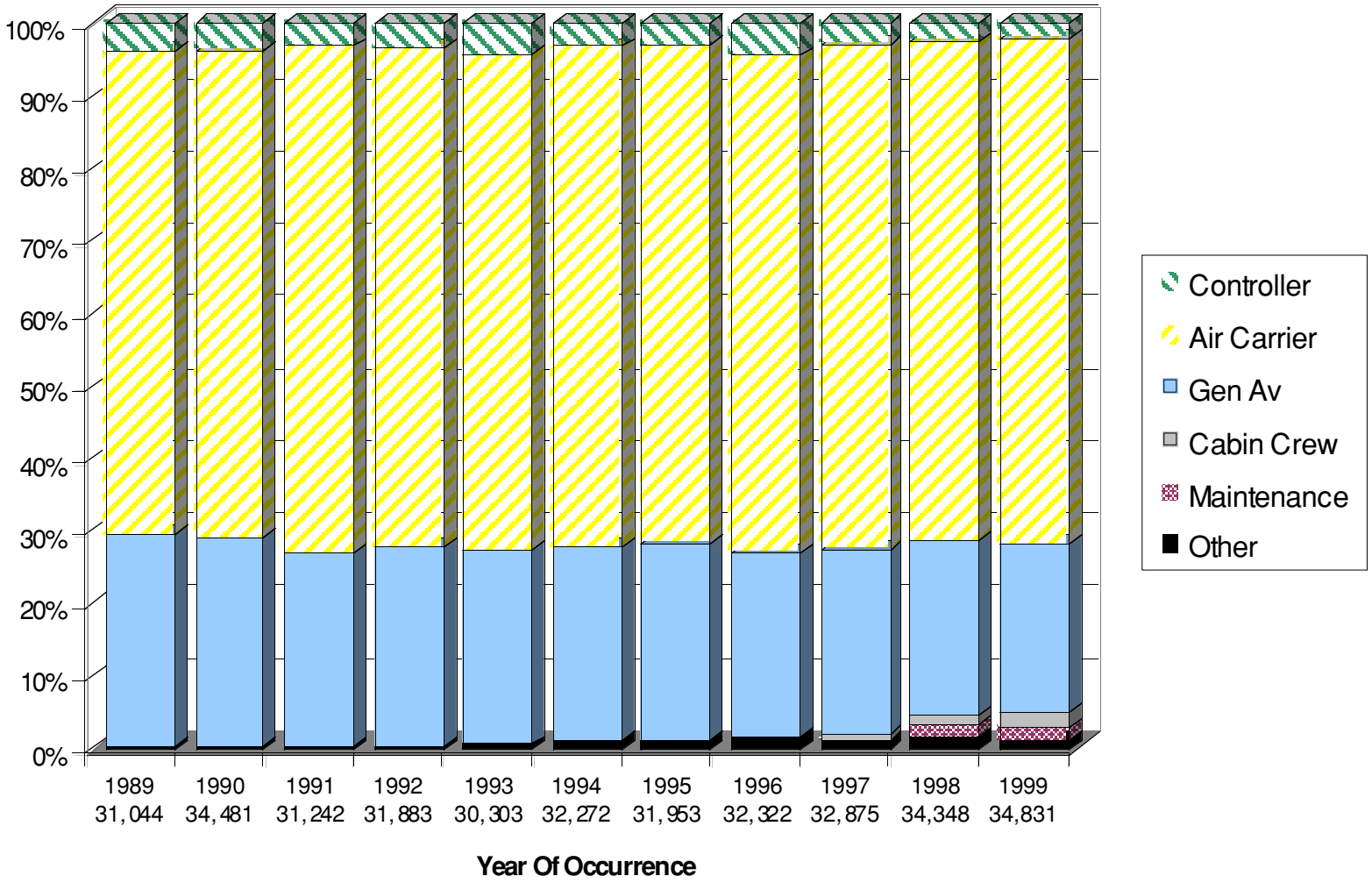
- Averaging 2,900 Reports Per Month
  - 143 per working day

- Total Report Intake = 460,088 Reports

Annual ASRS Report Intake



INCIDENT REPORTER DISTRIBUTION
1 January 1989 to 31 December 1999



ALERTING MESSAGES

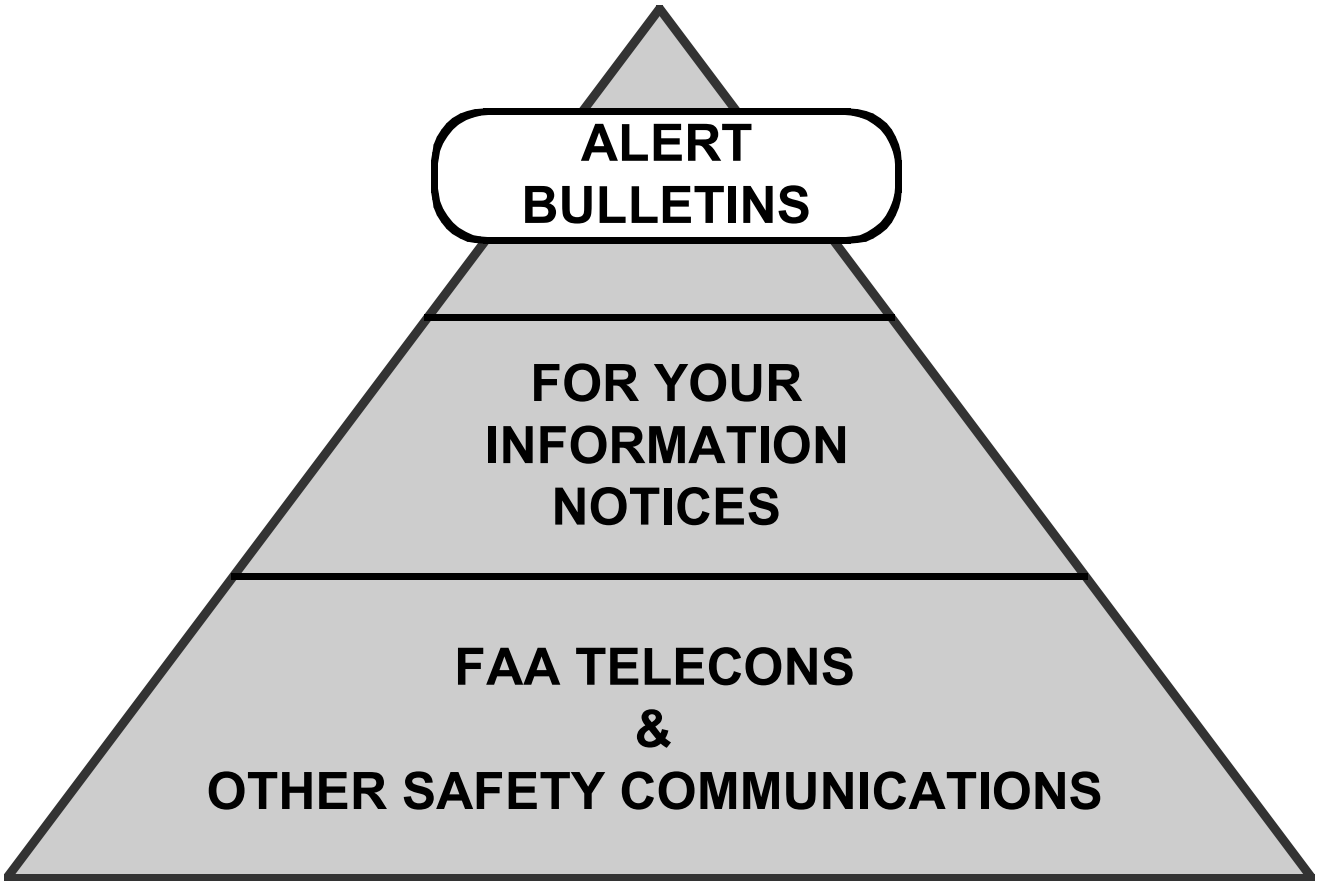
ALERTING MESSAGES OVERVIEW

When ASRS receives a report describing a hazardous situation – for example, a defective navigation aid, mischarting, a confusing procedure, or any other circumstance which might compromise safe flight - an alerting message is issued using deidentified information provided in the reports.

Alerting messages have a single purpose: *to relay safety information to individuals in a position of authority so that they can evaluate the allegations and take needed corrective actions.*

ASRS has no direct operational authority of its own. It acts through, and with the cooperation, of others.

ASRS ALERTING PYRAMID



DATABASE SEARCH REQUESTS

DATABASE SEARCH REQUESTS

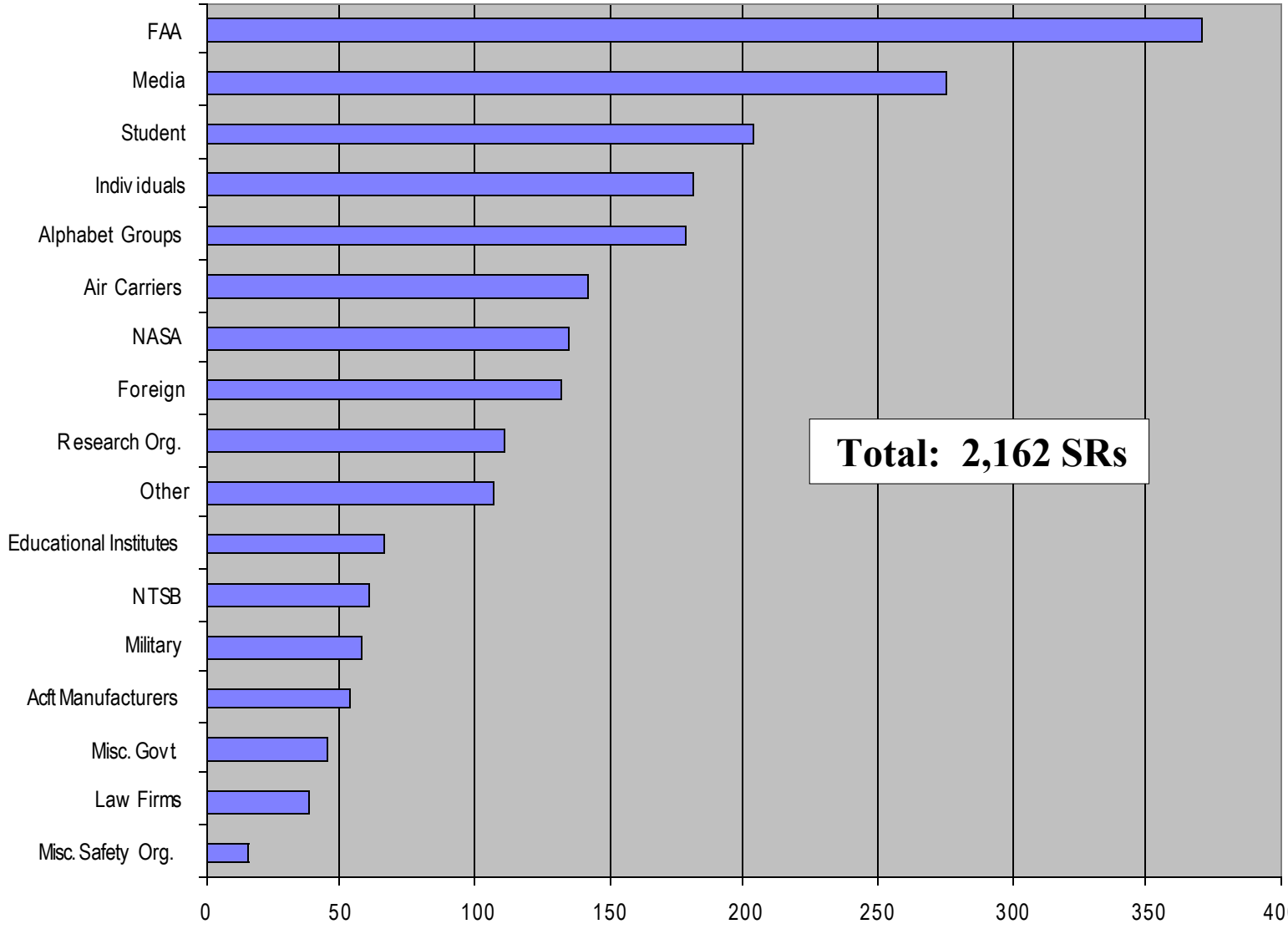
Information in the ASRS database is available to all interested parties. Individuals and organizations need to state the subject in which they are interested. ASRS will search its database and download relevant reports. They also include caveats and explanations of the document set.

Selected ASRS database sets are available to download at the ASRS website (http://asrs.arc.nasa.gov/). Database direct access is available through CD Rom product and FAA web site (http://nasdac.faa.gov/) which is updated quarterly.

SEARCH REQUEST METRICS

- Over 5,852 Search Requests (SRs) accomplished by ASRS staff through 31 December 99
- Over 50,000 database sets have been downloaded from the ASRS website (Database sets first posted on 15 January 00)

SEARCH REQUESTORS BY ORGANIZATION
January 1995 – August 2000



QUICK RESPONSES

QUICK RESPONSES OVERVIEW

Quick Responses are rapid turnaround data analysis accomplished within two to ten days of the request. They are a high value service directed towards safety issues with immediate operational importance. Quick Responses are limited to government agencies such as the FAA, NTSB, NASA, and U.S. Congress.

RECENT QUICK RESPONSE APPLICATIONS

- Part 121 / 135 Duty Schedule-Related Fatigue Incidents (QR 304)
- Propulsion System Failure (QR 305)
- GA Weather-Related Reports (QR 306)
- Runway Incursions Data Analysis Update (QR 307)

CALLBACK

CALLBACK OVERVIEW

CALLBACK is ASRS's award-winning monthly safety bulletin that began publication in 1979. It has an estimated readership of more than 150,000. Over 246 issues have been published and distributed throughout the U.S. and to the international aviation community. All issues are available for download at the ASRS website.

CALLBACK IS A HIT WITH THE AVIATION COMMUNITY

- Winner of four major aviation industry awards
  - Aviation/Space Writers Association (1992, 1982)
  - Flight Safety Foundation (1987, 1981)
- Sample reader comments:
  - *I am a an air carrier captain/flight examiner and also a flight simulator instructor.... I use examples from your publication in almost every briefing .... Thanks for a great publication that I find an invaluable tool in the performance of my job.*
  - *Enclosed you will find a photo of a display board that we built that will hold about a 3-year history of CALLBACK.... We strongly support your program.... Apparently, so do a number of the transient pilots who use our airport, since we observe them reading the reports on display.*

DIRECTLINE

DIRECTLINE

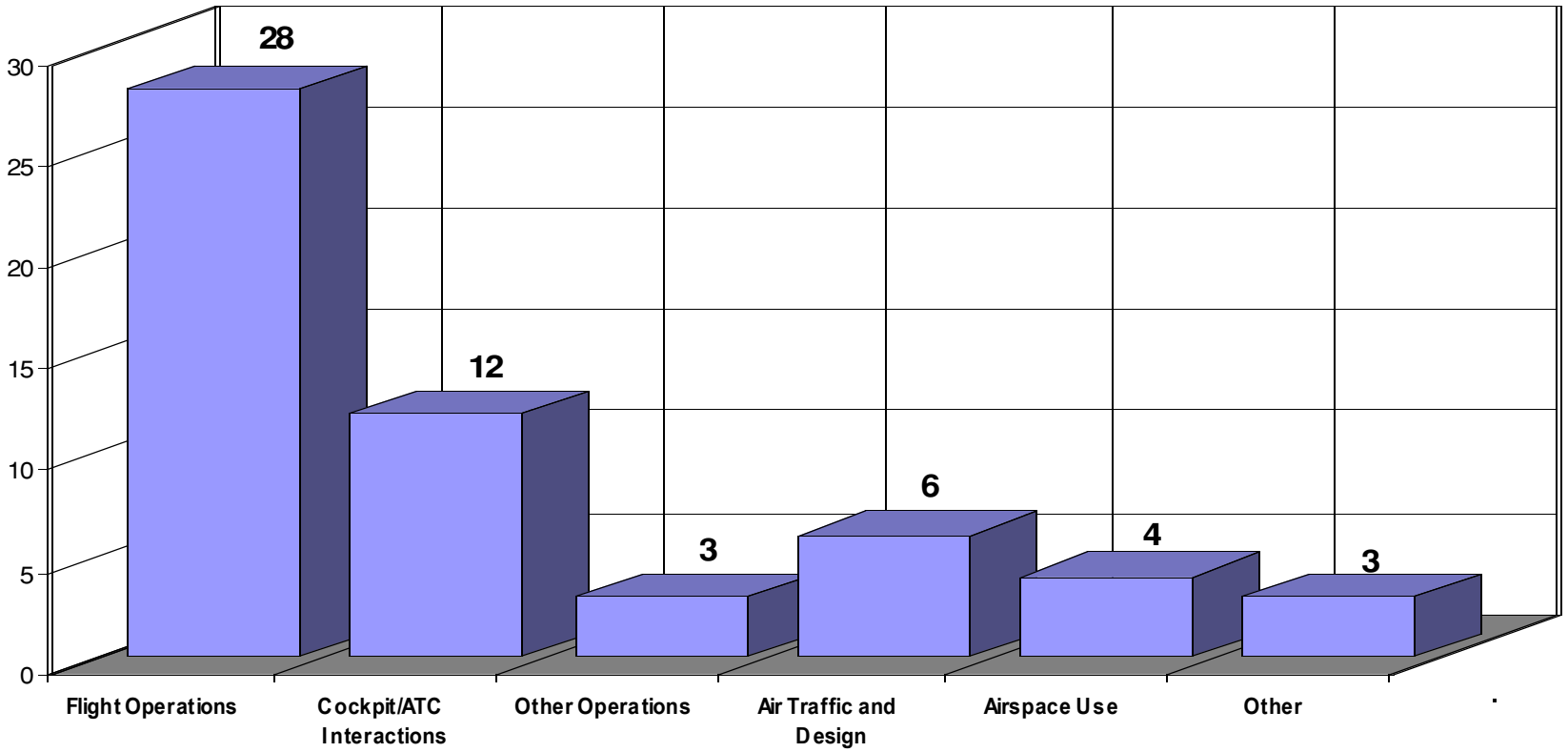
DIRECTLINE is another award-winning ASRS publication. This safety journal has an estimated distribution / readership of 20,000. Ten issues have been published since 1991 with a baseline of three to five articles per issue. All issues are available for download at the ASRS website.

ASRS RESEARCH

ASRS RESEARCH FOCUSED ON OPERATIONS AND HUMAN FACTORS

- 57 Research Studies and Special Papers Published To Date
  - NASA Contractor Reports (CRs) and Technical Memorandums (TMs)
  - Ohio State University Aviation Psychology Symposium
  - Industry Liaison
- Research Agenda developed from collaborations with government and industry safety organizations

PUBLISHED ASRS RESEARCH TOPICS



ASRS METRICS
1 April 1976 – 31 December 1999

Significant Item	Quantity
Incident Reports Received	460,088
Safety Alert Messages Issued	3,426
Search Requests/Quick Responses	5,959
CALLBACK Safety Bulletins	246
DIRECTLINE Issues	10
Major Research Studies	57

TECHNOLOGY TRANSFER

UNITED STATES
- Aviation Safety Reporting System (1976)

UNITED KINGDOM
- Confidential Human Incident Reporting Program (1982)

CANADA
- Confidential Aviation Safety Reporting Program (1985-95)
- SECURITAS (1995-present)

AUSTRALIA
- Confidential Aviation Incident Reporting System (1988)

RUSSIA
- Voluntary Aviation Reporting System (1992)

TAIWAN
- Taiwan Aviation Confidential Aviation Reporting Enterprise (2000)

KOREA
- Korean Confidential Aviation Incident Reporting System (2000)

ASRS Summary

ASRS is a highly successful and trusted program that has served the needs of the aviation community for 25 years. It is available to all participants in the National Aviation System who wish to report safety incidents and situations.

Because of the success of ASRS, there is a growing interest in utilizing the ASRS model for application to other disciplines such as medicine, maritime, rail, and others.